CLAIMS

What is claimed is:

1. A method of making a molded plastic article, in particular a thick-walled, flat molded article such as a disc, comprising the steps of:

   closing a cavity of a positive mold by applying a clamping force;

   fully filling the cavity with plastic material, while maintaining a size of the cavity constant;

   adding plastic material so as to distend the positive mold in opposition to the clamping force until the positive mold reaches a defined article thickness;

   closing the positive mold until reaching a residual distending opening and molding the plastic material into a plastic article while applying the clamping force to thereby maintain the plastic material compressed; and

   removing the plastic article.

2. The method of claim 1, wherein the adding step is controlled in dependence on a distance traveled by an advancing screw.

3. The method of claim 1, wherein the adding step is controlled in dependence on a distending motion of the positive mold.

4. The method of claim 1, and further comprising the steps of measuring an internal pressure in the positive mold, and applying the clamping force in dependence on a profile of the internal pressure.

5. The method of claim 1, and further comprising the step of applying a higher clamping force upon the positive mold at a location closer to a sprue than at a location farther away from the sprue.

6. The method of claim 1, wherein the molding step is carried out at constant clamping force.

7. Apparatus for making a molded plastic article, in particular a thick-walled, flat molded article such as a disc, comprising:

a positive mold;

a closing unit for closing the mold and applying a clamping force upon the closed mold; and

a measuring device for ascertaining an distension of the closed mold in opposition to the clamping force.

8. The apparatus of claim 7, wherein the measuring device has plural sensors for determining an uneven distension of the mold.

9. The apparatus of claim 7, wherein the mold is a positive mold having die inserts.

10. The apparatus of claim 7, wherein the measuring device includes a displacement transducer provided on a moving platen of the mold.

11. The apparatus of claim 7, wherein the measuring device includes a plurality of displacement transducers disposed in proximity of a sprue site of the mold.